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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,891	11/26/2003	Melissa D. Boyd	10970792-4	1137

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EXAMINER	
HUFFMAN, JULIAN D	

ART UNIT	PAPER NUMBER
2853	

DATE MAILED: 09/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/723,891	BOYD ET AL.	
	Examiner	Art Unit	
	Julian D. Huffman	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *20-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *20-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/26/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 25 and 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 23 and 32 recite a plurality of subchannels, while claims 25 and 34 recite another plurality of subchannels. The first plurality of subchannels is indistinguishable from the other plurality of subchannels.

Double Patenting

3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. Claims 26, 35 and 41 rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1, 8 and 15 of prior U.S. Patent No. 6,679,596 B2. This is a double patenting rejection.

Claim 26 of the present application claims the same invention as claim 1 of the '596 Patent.

Claim 35 of the present application claims the same invention as claim 8 of the '596 patent.

Claim 41 of the present application claims the same invention as claim 15 of the '596 patent.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 20-25, 27-34, 36-40 and 42-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Cowger et al. (U.S. 5,565,900).

With regards to claims 20 and 29, Cowger et al. disclose a fluid ejection assembly, comprising:

a reservoir adapted to hold a supply of fluid therein (column 2, lines 28-29);

a platform (24) having a fluid inlet (32), a fluid outlet (34), a plurality of fluid feed slots (fig. 2, element 81), and a fluid manifold (column 2, lines 30-32) defined therein, wherein the fluid inlet and the fluid outlet communicate with the reservoir and the fluid manifold communicates the fluid feed slots with the fluid inlet and the fluid outlet (figs. 1-3); and

a plurality of fluid ejection devices (40) each mounted on the platform, each of the fluid ejection devices including an array of drop ejecting elements (57) and a fluid refill slot (83) communicating with the array of drop ejecting elements, wherein the fluid refill slot (83) of each of the fluid ejection devices communicates with at least one of the fluid feed slots (81) of the platform (column 4, lines 8-11);

wherein the fluid manifold fluidically couples each of the fluid feed slots with the fluid inlet and the fluid outlet of the platform (column 4, lines 4-26).

With regards to claim 21, the fluid manifold is adapted to circulate fluid between the fluid inlet, the fluid feed slots and the fluid outlet (manifold flows fluid from inlet to feed slots and the fluid eventually flows to outlet).

With regards to claim 22, the fluid manifold is adapted to circulate fluid from the fluid inlet to one of the fluid feed slots, from the one of the fluid feed slots to another of the fluid feed slots and from the other of the fluid feed slots to the fluid outlet (fig. 6, fluid flows from inlet 32 to manifold 101, to apertures 81, to apertures 83, to duct 91, to via 84, to passageways 72 and 74; and the ink is continuously circulated through each print head through the pathways, as shown in fig. 6, and ultimately arrives at outlet 34 where it returns to the reservoir).

With regards to claims 23 and 32, the manifold includes a channel (101) communicating with at least one of the fluid inlet and the fluid outlet, and a plurality of subchannels each communicating with the channel and one of the fluid feed slots of the platform (the manifold forms a channel which has subchannels that branch off and communicate with each one of the apertures 81).

With regards to claims 24, 25, 33 and 34, the fluid manifold includes another channel (103) communicating with another of the fluid inlet and the fluid outlet, and another plurality of sub-channels each communicating with the other channel and one of the fluid feed slots of the platform (outlet manifold 103 is supplied with ink from outlet aperture which includes subchannels that supply ink from outlet port 92 to outlet aperture to manifold 103, column 4, lines 20-26).

With regards to claims 27 and 36, each of the drop ejecting elements includes a fluid chamber (fig. 7, element 98) communicated with the fluid refill slot, a firing resistor (94) positioned within the fluid chamber, and a nozzle opening (57) associated with the firing resistor and communicated with the fluid chamber.

With regards to claims 28 and 37, an electrical interconnection (fig. 2, element 26) extending through the platform, wherein each of the fluid ejection devices are electrically coupled to the electrical interconnection, is disclosed.

With regards to claims 30 and 31, the fluid manifold is adapted to circulate a quantity of the fluid from the reservoir to each of the fluid ejection devices, from one of the fluid ejection devices to another fluid ejection device (fig. 6, fluid flows from inlet 32 to manifold 101, to apertures 81, to apertures 83, to duct 91, to via 84, to passageways 72 and 74; and the ink is continuously circulated through each print head through the pathways, as shown in fig. 6 and ultimately arrives at outlet 34 where it returns to the reservoir) and from the another/each fluid ejection device back to the reservoir (column 4, lines 11-26).

With regards to claims 38-40 and 42, Cowger et al. disclose a method of forming the fluid ejection assembly discussed above, including coupling the flow paths to one another to define a fluid flow path between the fluid inlet, the plurality of fluid feed slots and the fluid outlet with the fluid manifold (column 4, lines 4-26).

With regards to claims 43-45, Cowger et al. disclose a method of circulating fluid between a reservoir and a plurality of fluid ejection devices each mounted on a platform, the method comprising:

communicating a fluid inlet (32) and a fluid outlet (34) of the platform with the reservoir (column 2, lines 28-29);

supplying a fluid manifold (column 2, lines 30-32) of the platform with fluid from the reservoir via the fluid inlet;

distributing the fluid to a plurality of fluid feed slots (fig. 2, element 81, column 4, lines 8-11) of the platform via the fluid manifold;

supplying a fluid refill slot (83) of each of the fluid ejection devices with a portion of the fluid via the fluid feed slots (column 4, lines 8-11); and

returning a portion of the fluid to the reservoir via the fluid manifold and the fluid outlet (column 2, lines 32-35);

wherein distributing the fluid to the fluid feed slots includes distributing the fluid from one of the fluid feed slots to another of the fluid feed slots via the fluid manifold (fig. 6, fluid flows from inlet 32 to manifold 101, to apertures 81, to apertures 83, to duct 91, to via 84, to passageways 72 and 74; and the ink is continuously circulated through each print head through the pathways, as shown in fig. 6, and ultimately arrives at outlet 34 where it returns to the reservoir);

wherein supplying the fluid refill slot of each of the fluid ejection devices includes feeding a fluid chamber (98) of each of the fluid ejection devices with a portion of the fluid (column 4, lines 40-42).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (571)272-2147. The examiner can generally be reached Monday through Friday from 9:00 a.m. to 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier, can be reached at (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JH

August 31, 2004

Thinh Nguyen
Primary Examiner
Technology Center 2800